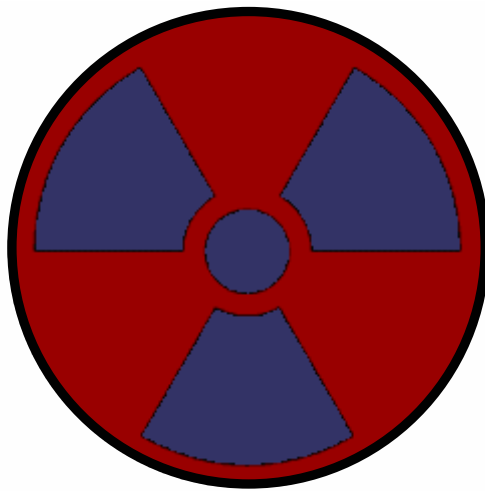


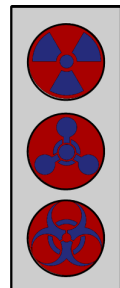
NUCLEAR TERRORISM

US Policies to Reduce The Threat of Nuclear Terror

**- Brian D. Finlay -
September 2008**



In Support of PSA's
**REPORT CARD ON WMD
TERROR PREVENTION**



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The Partnership for a Secure America (PSA) is dedicated to recreating the bipartisan center in American national security and foreign policy.

Past decades have witnessed a hardening of partisan divisions on national security and foreign policy, limiting productive debate and blocking effective action by Congress and the Executive Branch on critical policy issues. This rising partisanship has soured working relationships among policymakers and their counterparts across the aisle at all levels of government, and our national security and foreign policy discourse has suffered as a result.

The Partnership for a Secure America was created to respond to this growing problem and to help foster sensible, bipartisan, consensus driven solutions to the major national security and foreign policy challenges facing our country.

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TABLE OF CONTENTS

PREFACE	3
REPORT CARD	5
INTRODUCTION	7
PREVENTION.....	9
Cooperative Nonproliferation	9
Counterproliferation	13
DETECTION/ INTERDICTION.....	15
INTEGRATION	17
SUSTAINMENT	19
RECOMMENDATIONS	21
Strengthening Prevention.....	21
Ensuring Detection.....	21
Expanding Integration.....	22
Promoting Sustainability	22
NOTES	23



PREFACE

We are fortunate to live in a period of unprecedented peace among the world's major powers. Senior US officials meet routinely with representatives of our former Cold War rivals to discuss issues of shared concern, including security, the global economy, and the environment. While the US and our international partners cannot always come to agreement on these important issues, states are far more likely to deploy diplomatic, economic, and political tools to support their foreign policies than to order military action against one another.

But as the likelihood of military conflict among powerful states has declined, a grave new threat has emerged: International terrorists, operating in small cells and loosely organized global networks, could harness the world's most dangerous weapons to unleash massive destruction on our vulnerable population and economic centers. The 9/11 attacks reminded Americans that terror can strike anywhere at any time, and that terrorists can transform the proudest technological achievements of modern open societies into devastating weapons of mass destruction.

Pursuing its mandate to advise Congress and the President how best to prevent

future terror attacks on the United States, the 9/11 Commission identified the potentially deadly combination of the world's most dangerous people and history's most destructive weapons as the single greatest threat to US security. In its 2004 report, the Commission concluded that Al Qaeda and other terrorists were in the market for Weapons of Mass Destruction (WMD), including nuclear, chemical and biological weapons, and that the US must therefore invest maximum effort in preventing them from falling into terrorist hands.

The following report, which examines current US government policies and programs to prevent nuclear terrorism, is one piece of PSA's larger effort to assess US government progress in implementing the recommendations of the 9/11 Commission. The findings of this report, combined with similar expert assessments focused on prevention of chemical and biological terror attacks, are summarized in PSA's Report Card on WMD Terror Prevention (*available online at www.PSAonline.org*). These assessments underline the conclusion of the 9/11 Commission that the intersection of international terrorism and WMD proliferation poses an unparalleled and unacceptable threat our national security.

The study below acknowledges that the US government has taken important steps to prevent nuclear proliferation

and to detect and interdict the international transfer of potentially dangerous nuclear materials. Yet it also finds that US government money and authority remains overly stove-piped within agencies, and poor interagency coordination hampers overall policy effectiveness. At the other end of the policy process, foreign government partners often do not share US goals and expectations, while investments in sustainable and transparent civilian opportunities for WMD experts are inadequate, undermining long-term US goals.

To fulfill the 9/11 Commission's call for "maximum effort" against WMD terrorism will require the full attention and enduring commitment of leaders on both sides in Congress, and from the next President. Working together, Congress and the Administration must bring funding levels, statutory authority and agency structures into line with the core objective of denying terrorists access to nuclear, chemical and biological weapons around the globe. Ensuring that our policymakers take the most effective steps toward this objective will require ongoing evaluation by outside experts, along the lines of this study and others cited herein, as well as by the government itself.

This report is not intended as the final word on the subject from PSA, the author, or any of our Advisory Board

members, including the former Chair and Vice Chair of the 9/11 Commission. As those distinguished Americans put it in their own statement in 2005, this is an endeavor that will require "sustained attention, over several years, perhaps even generations, from our political leaders."¹ In publishing the Report Card, we too seek to help maintain a sense of urgency, focus the resources and attention of government, and contribute to making the American people safer and more secure.

Matthew A. Rojansky
PSA Executive Director

¹ Thomas H. Kean and Lee H. Hamilton, "Report on the Status of 9/11 Commission Recommendations Part III: Foreign Policy, Public Diplomacy and Non-Proliferation", accessed at <http://www.9-11pdp.org/press/2005-11-14_remarks.pdf>



REPORT CARD

Pillars Of Nuclear Terror Prevention:

Status in 2008:

Prevention (Cooperative nonproliferation and counterproliferation)

Nonproliferation programs limited primarily by lack of interagency coordination and long term strategy, mismatch of US and foreign expectations; New multilateral counter-proliferation initiatives lacking US follow through.

Detection/Interdiction of weapons and materials

Tenfold increase in port security funding, 90% of US-bound cargo pre-screened; public/private sector collaboration still inadequate.

Integration of US Government programs

Authority and budgets stove-piped across multiple agencies; poor coordination between traditional security and development agencies.

Long-term sustainment of programs

Lack of host country buy-in to ongoing program goals; US policies too short term in focus; human engagement programs under-funded.

GRADE

C+

B

D

D

OVERALL GRADE

C



INTRODUCTION

In its final report, the 9/11 Commission found that, “The greatest danger of another catastrophic attack in the United States will materialize if the world’s most dangerous terrorists acquire the world’s most dangerous weapons.”¹ It concluded “that al Qaeda has tried to acquire or make weapons of mass destruction for at least ten years. There is no doubt the United States would be a prime target. Preventing the proliferation of these weapons warrants a maximum effort- by strengthening counter-proliferation efforts, expanding the Proliferation Security Initiative, and supporting the Cooperative Threat Reduction program.”²

Since the release of the Commission report, there has been no evidence to suggest that terrorist interest in nuclear weapons has abated. A recent report by MI5’s Joint Terrorism Analysis Center warns that a captured al Qaeda operative had said Osama bin Laden was planning an attack on “a par with Hiroshima and Nagasaki” in an attempt to “shake the Roman throne,” a reference to the West.³ Late in 2005, a radical Islamist website posted documentation on how to prepare various types of explosives. The document entitled, *An Encyclopedia for the Preparation of Nuclear Weapons* stated, “Perhaps nuclear weapons represent a technology of the 1940s. However, the Crusaders - the allies of Satan, Allah’s curse be upon them - insist upon depriving the Jihad fighters of the right to [have] these

weapons. But now the Jihad fighters have acquired technological skills that enable them, with Allah’s help, to understand this [nuclear weapons] technology. Thus, they are able to make a major leap forward in producing this kind of strategic weapon, even in the kitchens of their homes.”⁴

While bordering on the delusional, tangible evidence suggests that terrorist pursuit of both the technology and raw materials is a threat to be taken seriously. In November of 2007, two Hungarians and a Ukrainian were arrested by Slovak authorities after trying to sell potentially bomb-grade material likely sourced from one of the former Soviet republics.⁵ As a result, a 2007 National Intelligence Estimate concluded that “al-Qa’ida will continue to try to acquire and employ chemical, biological, radiological, or nuclear material in attacks and would not hesitate to use them if it develops what it deems is sufficient capability.”⁶

There is also sufficient evidence to suggest that terrorists’ pursuit of nuclear weapons and technologies is being facilitated by the global economy. Globalization, technological innovation, the ease of international communication and transport, free trade, financial liberalization, and the advent of the “virtual world” all collided with the end of the Cold War to challenge the authority of countries to prevent proliferation. In such an environment, nuclear technology and bomb-grade materials are becoming increasingly susceptible to acquisition and transport.

Reporting one year after the release of the original 9/11 Commission findings and recommendations, Chairman Kean and

Vice-Chairman Hamilton found positive but ultimately insufficient progress in the US government approach to preventing terrorist access to weapons of mass destruction. In their assessment, they assigned an overall grade of “D” to the US Government, criticizing the pace at which the cooperative nonproliferation programs were securing and eliminating bomb-grade materials and condemning Congress for failing to lift legislative restrictions on presidential action and government agencies for failing to prioritize this central threat to American security.

Today, US efforts to prevent terrorist acquisition and use of a nuclear weapon can be grouped into four broad policy pillars:

- ★ **PREVENTION:** which comprises efforts to secure weapons, bomb-grade materials, dangerous technologies, and know-how at their source;
- ★ **DETECTION/INTERDICTION:** which includes an array of bilateral and multilateral approaches to identify and halt the movement of materials should prevention fail;
- ★ **INTEGRATION:** which requires a comprehensive, unified plan leveraging all agencies of the US government in a coordinated counter-terrorism & nonproliferation strategy; and,
- ★ **SUSTAINMENT:** which includes policies that work to develop long-term global buy-in and global vigilance against the threat, and fosters strategies to build and transition salient programmatic counter-terrorism and nonproliferation efforts to indigenous control.



PREVENTION

Cooperative Nonproliferation

Two months after the attacks of September 11th, 2001, President Bush declared that America's "highest priority is to keep terrorists from acquiring weapons of mass destruction." Although the national strategy that followed necessarily was multilayered and multidimensional, at its core are efforts to prevent terrorist acquisition of both weapons and the materials necessary to build them from the outset. Analysts agree that the most effective and least expensive way to prevent nuclear terrorism is to secure weapons and materials at the source. As former Deputy Secretary of Energy Charles Curtis noted, "Acquiring weapons and materials is the hardest step for the terrorists to take, and the easiest step for us to stop. By contrast, every subsequent step in the process is easier for the terrorists to take and harder for us to stop. Once they gain access to materials, they've completed the most difficult step."⁷ As a result, any layered strategy to prevent nuclear terrorism must proceed from the central goal of securing weapons and materials before they proliferate. According to Steven Aoki, Deputy Undersecretary of Energy for Counterterrorism, "In this post-Cold War world, nuclear terrorism may be the single most catastrophic threat that this nation faces—we must do everything we can to ensure against its occurrence. We continue to believe that keeping nuclear materials

out of the hands of terrorists—and where possible, eliminating potentially vulnerable weapons-usable materials—is the most effective means of prevention."⁸

By the new millennium, the US Government had established an impressive track record in executing such a preventive strategy with a suite of collaborative programs initiated in 1992 in the states of the former Soviet Union. Subsumed under the moniker of Cooperative Threat Reduction or "Nunn-Lugar," the programs had already developed an astonishing record of success: thousands of former Soviet nuclear warheads had been deactivated; more than 500 intercontinental ballistic missiles once pointed at the United States and its allies were dismantled; dozens of nuclear submarines that once prowled the world's oceans waiting to deliver their atomic payloads on the West were destroyed; hundreds of tons of highly enriched uranium (HEU) from dismantled warheads were blended down and burned in civilian power reactors; and thousands of former weapons experts were redirected into sustainable civilian employment.⁹

Particularly relevant programs include: the Department of Energy's **International Materials Protection, Control, and Accounting (MPC&A)** program and **Global Threat Reduction Initiative (GTRI)**, and the Pentagon's **Cooperative Threat Reduction (CTR)** Program.

★ *International Materials Protection, Control, and Accounting:* The MPC&A program seeks to secure nuclear weapons and weapons-usable nuclear materials by upgrading security at

nuclear sites, by consolidating these materials to sites where installation of enhanced security systems has been completed, and by improving nuclear smuggling detection capabilities at international borders. Despite numerous successes, in 2005, approximately one-half of the nuclear materials in the former Soviet Union (FSU) lacked adequate security protection because of so-called “access disputes,”¹⁰ a situation that improved only marginally by the end of FY06.¹¹ According to the Government Accountability Office (GAO), the effectiveness of the program is further hindered because the Department of Energy (DoE) “lacks a management information system to track the progress made toward its goal of providing Russia with a sustainable MPC&A system by 2013.”¹² The budget for MPC&A was \$303.4 million and \$302.8 million for FY05-06, respectively, and fell significantly in FY07 to \$289 million.¹³ The President’s FY2008 request is \$252 million.¹⁴

★ *Global Threat Reduction Initiative (GTRI)*: Russia and the United States jointly launched the GTRI in 2004 to remove and secure HEU from research facilities around the globe. From mid-2004 to late 2007, GTRI has secured 565 radiological sites in 40 countries with physical protection upgrades and has removed more than 6,000 at-risk radiological sources from within the United States.¹⁵ As of December 2007, GTRI has returned to Russia more than 490 kg of HEU in 14 shipments and has converted 12 research reactors worldwide that formerly operated with HEU—that can be diverted for use in a

nuclear weapon—to low enriched uranium (LEU).¹⁶ More than 90 countries have joined the GTRI effort since its inception.¹⁷ Funding for GTRI has increased steadily from \$11 million in FY05 to roughly \$100 million in FY06 and FY07; the budget request for FY08 is \$119 million.¹⁸

★ *Cooperative Threat Reduction (CTR) Program*: The CTR program, founded in 1991, is managed by the Department of Defense and focuses on meeting four objectives: Dismantling FSU WMD and associated infrastructure; consolidating and secure FSU WMD and related technology and materials; increasing transparency and encourage higher standards of conduct; and supporting defense and military cooperation with the objective of preventing proliferation.¹⁹ Since 2005, CTR has implemented security enhancements at 11 Russian nuclear weapon storage sites, and performed security upgrades at more than 70 nuclear warhead and storage material sites. In addition, 75% of buildings in the FSU that contain nuclear materials have undergone “rapid upgrades” and 54% have undergone “comprehensive upgrades.”²⁰ Positive changes in the CTR program since 2005 include the repeal of annual Congressional certification requirements to ensure that money continues to be available for ongoing essential work. A \$50 million funding cap, however, still prevents implementation of the CTR programs outside the FSU. CTR was appropriated a total of \$428 million for FY2008,²¹ which is only \$19 million above FY05 funding levels and \$64 million less than the amount obligated in FY06.



Despite this impressive roster of accomplishments, the nonproliferation programs, as currently configured, are neither providing the maximum return on government investment nor accomplishing their goals at a pace commensurate with the urgency of the threat. Much of the blame for these inefficiencies can be laid on the doorsteps of the host government states that have often proven to be fickle partners. A lack of a sense of urgency over the nature of the threat, enduring Cold War hostilities, and a variety of unrelated issues have all conspired to frustrate seamless progress toward achieving their ultimate objective. Like these foreign partners, however, the United States Government has also erected its own barriers to success. A recent study by The Henry L. Stimson Center categorizes these impediments into three broad areas: **lack of interagency collaboration, unrealistic expectations and inefficient oversight** of program implementation.²² Although the overall resource levels committed to these programs (from both budgetary and human resource perspectives) have flat-lined since 2005, a large infusion of **financial resources** would likely be counterproductive until the core organizational impediments are overcome.

★ *Interagency collaboration:* The US Departments of Defense, Energy and State all suffer under the significant programmatic impediments resulting from unclear lines of authority among agencies or from incongruities in the interagency process. Furthermore, a definitive need exists for greater information sharing among agencies

regarding their respective programs and activities in the field. It is common for multiple agencies to simultaneously plan and pursue similar opportunities on the ground in the FSU only to then learn of each other's efforts through their host partners. The impact of agency parochialism has resulted in: delays in the execution of programs, redundancies in efforts, unrealized potential to build synergies within or between agency efforts, and a potential for program efforts to work at cross-purposes with or to be impeded by other foreign policy objectives. As the geographical reach of these programs expands, this problem is likely to grow.

★ *Unrealistic expectations:* An enduring need exists for more planning, consensus-building and clarity regarding procedures between the US and host countries at the inception of a program's execution. This balancing of expectations would help avoid any misunderstandings or souring of relationships due to program changes midstream or due to blatant misinterpretations of false assumptions. US Government efforts to ensure sustainability will benefit from a more solid foundation if it builds a consensus early on regarding the host country's needs and objectives. Without this basis at the outset, US efforts will likely meet with resistance during program implementation and the execution of an exit strategy would also be difficult. As one particularly worrisome example, program managers point to Russia's lack of priority attention to HEU protection as one instance of how US investments may not endure after US funding sunsets. The

Russian Government is far more preoccupied with the threat presented by “dirty bombs” and has thus prioritized its domestic funding on that basis.

★ *Inefficient oversight:* All three Executive agencies labor heavily under cumbersome congressional oversight activities, including detailed reporting requirements, nonsensical earmarks, a lack of nuance in metrics for progress, and an insufficient understanding of the programs. The complexity of these programs, their dispersion among multiple agencies, the limited personnel responsible for executing them, and the relatively small budgets afforded them all suggest that finding a more effective and less time-consuming means for informational exchanges between the agency actors and their congressional counterparts would be highly advantageous and lead to fewer legislative restrictions on implementation and an expedited pace of success.

★ *Financial resources:* Top-line non-proliferation funding has remained largely static since 2005, increasing only marginally from \$1.25 billion in FY05 to \$1.4 billion in FY07. While it is clear that more money could translate into faster progress in selected programs, big boosts to targeted initiatives in the past have often not been expended efficaciously. In addition to the obstacles to effective implementation described above, budgetary increases have seldom been matched by additional personnel capacity at the agency to efficiently execute the enhanced funding. Although additional across-the-board funding would signal a heightened political

attention to these programs and increase the leverage exerted by the implementing agencies over their host country sponsors, until programs are adjusted to effectively execute additional resources, then budgetary increases could prove counterproductive. While budgetary increases are still necessary, plus-ups must be followed by legislative and bureaucratic fine-tuning to ensure overall success. To date, the US Government has not acted in a coordinated manner to accomplish this goal.

In 2002, under pressure to identify additional funding streams for cooperative nonproliferation activities in the states of the former Soviet Union, the Bush administration spearheaded the launch of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction. The goal was to double the United States’ investment in Russian nonproliferation projects during a ten-year period, adding \$10 billion in other G8 partner funding. The Global Partnership is a laudable, but overdue, effort. To date, the initiative has secured only \$18.2 billion of its overall target of \$20 billion. More distressing has been the pace with which existing pledges are being converted to projects on the ground. At present, less than half of the pledges have been turned into tangible initiatives. In large measure, this is due to the continuing reluctance of many of the smaller state contributors to “piggyback” their financial commitments onto other states’ projects. Because many projects within the host countries require larger investments than these smaller



donor states are willing to contribute, and due to their unwillingness to commingle their funds with other states' contributions, they have been unable to translate their pledges into non-proliferation programs in support of the Global Partnership. Furthermore, the lack of coordination that plagues the interagency relationships within the United States is even more remarkable at the international level, with some states competing to undertake projects, rather than collaborating on their execution. As a result, despite some notable successes, the progress made by the Global Partnership so far has been disappointing.

In 2005, reflecting the urgency of the preventive efforts, Presidents Bush and Putin agreed to an accelerated timetable for completing the security upgrades, repatriating the highly-enriched uranium from research reactors in their countries, cooperating on nuclear emergency response and best practices, and establishing a domestic security culture. The success of the Bratislava Nuclear Security Cooperation Initiative demonstrates the important role that senior-level engagement and streamlined bureaucratic implementation can play in strengthening and accelerating nonproliferation cooperation. Such high-level engagement should be encouraged across all high-priority areas.

Counterproliferation

For years, the intelligence community harvested rumors that nuclear scientist and

father of the Pakistani bomb, AQ Khan, was proliferating critical technologies and expertise abroad. When news of the size and scope of the Khan network finally came to light, the national security community was once again rocked. The then-Director of the Central Intelligence Agency asserted that Khan had done more damage to the security of the United States than Osama bin Laden had ever dreamed. For more than a decade, Khan's black market spanned the globe, providing "one stop" shopping to untold numbers of customers from North Korea and Iran to Libya. The success of the network

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demonstrated the ease with which existing measures to prevent proliferation have been challenged by the globalization of technology. This, along with the internationalization of production and trade, led the 9/11 Commission to call upon the international community to "develop laws and an international legal regime with universal jurisdiction

to enable the capture, interdiction, and prosecution of such smugglers by any state in the world where they do not disclose their activities."²³ Particularly since 2004, the US Government has worked diligently toward this objective, although in some cases, follow through has been lacking.

In April 2004 at the urging of the United States, the UN Security Council adopted Resolution 1540, which requires states to enact and enforce national legal and regulatory measures to prevent proliferation of weapons of mass destruction, their delivery systems, and related materials, as well as to establish

financial controls to prevent the financing of such transactions. Despite early attention, however, 1540 has neither received the consistent support of the United States, nor the sustained commitment of the international community requisite to move the Resolution from a multifaceted directive to an effective instrument of nonproliferation. The Security Council Committee responsible for monitoring implementation of 1540 is overwhelmed and under-resourced—its mandate restricted to monitoring without detailed analysis or comparison of correlated needs and resources. Many countries have questioned the legitimacy of the Resolution, resulting in uneven implementation and a loss of prioritization. To date, only 136 of the 192 Member States of the United Nations have undertaken the first stage of implementation by submitting a mandatory report on national execution of the Resolution.

One year later, in April 2005, the UN General Assembly adopted the International Nuclear Terrorism Convention. This Convention is significant in that it is the first anti-terrorism convention adopted and completed since the September 11, 2001 terrorist attacks on the United States. The Convention seeks to criminalize specific threats and acts of terrorism involving the unlawful and intentional possession or use of nuclear and radioactive materials.²⁴

In July of 2007, President Bush transmitted the text of the Convention to the Senate for its advice and consent to ratification—just five days after the treaty entered into force.²⁵ He simultaneously submitted a report by the State Department, including the associated assumptions and

reservations of the administration in regard to the report. The President indicated that the administration would submit to the Congress separately the recommended legislation necessary to implement the convention.²⁶ The Treaty has been received in the Senate and, as of October 2007, had been referred to the Committee on Foreign Relations.²⁷

Equally important, the United States Government sought in 2007 to bring the 2005 Amendment to the Convention on the Physical Protection of Nuclear Materials into force. That Convention, which entered into force in 1987, is primarily concerned with the appropriate use, storage, and transport of nuclear materials and provides a legal framework for the States Parties to ensure that nuclear materials are not diverted from legitimate, peaceful nuclear uses.²⁸

In July 2005, a Conference of State Parties adopted an Amendment to expand the Convention's jurisdiction to make it legally binding upon States Parties to protect domestic use, storage, and transport of nuclear materials (as opposed to strictly international control). The 2005 Amendment requires two-thirds of the 130 States Parties to submit their instruments of ratification before it enters into force and, as of July 2008, only 17 States have done so.²⁹ The Bush administration submitted the instruments for ratification of the Amendment to the Senate on September 4, 2007.³⁰

PREVENTION: C+



DETECTION/ INTERDICTION

Consistent with the 9/11 Commission recommendations, the President's 2002 National Strategy to Combat Weapons of Mass Destruction calls for a "comprehensive strategy to counter this threat in all of its dimensions." A critical component of a layered strategy, in the event that prevention fails, is detection and interdiction of loose materials or weapons.

Two key efforts fall under the cooperative nonproliferation umbrella: the Second Line of Defense Program and the Megaports Initiative. To improve border security, the former provides fixed and hand-held equipment, related communications tools, and training for personnel to enhance sustainability in equipment use and interdiction procedures at borders and crossing points. The program has received significant budgetary and political attention in recent years. In FY04, the total appropriation exceeded just \$33 million, as compared to an FY07 appropriation of almost \$84 million and a FY08 request of \$72.5 million. The Megaports Initiative works to install radiation detection capabilities at key ports around the globe to screen cargo for nuclear and radioactive materials. Together, these programs aim to install detection equipment at 450 border crossings and 75 "megaports" by the end of

The Megaports Initiative works to install radiation detection capabilities at key ports around the globe to screen cargo for nuclear and radioactive materials.

2014. At the close of FY06, 98 border crossings and six megaports had operational systems.³¹ The FY04 appropriation for Megaports was \$13 million, as compared to an FY07 appropriation of \$40.1 million and an FY08 request of \$46.8 million. In mid-2007, the Department of Energy reached an important agreement with Russia to complete installation of radiation detection equipment at hundreds of Russian border crossings by the end of 2011. Moscow also agreed to fund roughly one-half of the total cost of this work.³²

The Megaports Initiative complements the Department of Homeland Security's Container Security Initiative (CSI) and its effort to safeguard global maritime trade by enhancing security at seaports worldwide to help identify and examine high-risk containers as early as possible before they reach US shores.

Overseen by US Customs and Border Protection (CBP) under the Department of Homeland Security, the CSI stations multidisciplinary teams of US officers from the CBP and Immigration and Customs Enforcement (ICE) in key locations to work with foreign government counterparts of the US. The mission of these teams is to target and prescreen containers and develop additional investigative leads related to the terrorist threat to cargo destined for the United States. In just over four years, 26 customs administrations around the world have committed to joining the CSI and are in various stages of implementation. The CSI is now operational at 58 ports in North America,

Europe, Asia, Africa, the Middle East, and South and Central America, making about 90% of all transatlantic and transpacific cargo imported into the United States subject to prescreening prior to importation.³³

Assuming that prevention and border detection strategies fail, international cooperation is essential to effectively detecting and interdicting illegal movement of nuclear materials, equipment, and technology in transport. The 9/11 Commission found that the “PSI (Proliferation Security Initiative) can be more effective if it uses intelligence and planning resources of the NATO alliance. Moreover, PSI membership should be open to non-NATO countries. Russia and China should be encouraged to participate.”³⁴ The PSI has grown from the 11 original participants to 92 as of May 2008.³⁵ Roughly two dozen successful interdiction missions were undertaken by PSI partners between 2005 and 2006.³⁶

Despite its ostensible successes, PSI continues to encounter several legal challenges. The PSI countries are concerned about the circumstances in which they might be legally justified in interdicting a WMD or missile shipment and are interested in clarifying the relevant legal bases for action. In addition to the legal questions facing the PSI in its efforts to intercept WMD and missile shipments, there is also an array of practical considerations that could impair its success. Any efforts to prevent shipments of concealed bomb-grade nuclear materials would find enormous technical challenges in detecting grapefruit- or softball-sized quantities shielded and buried in the hulls

of freighters or in intercepting materials on board a jet liner. Nonetheless, the PSI provides an important opportunity for possible interdiction of items shipped on the high seas in the event of a failure of preventive strategies.

DETECTION/ INTERDICTION:

B



INTEGRATION

Since at least 1999, numerous government and independent reports have pointed to the need for a single comprehensive and strategic plan to secure and ultimately neutralize all weapons-usable material in the states of the former Soviet Union and around the globe. Describing this plan as America's top national security imperative in 2005, Governor Kean noted that, "The President should develop a comprehensive plan and dramatically accelerate the timetable for securing all nuclear weapons-usable material around the world."³⁷ In addition, the US Congress has similarly mandated the development of a unified strategy governing the cooperative nonproliferation programs. Despite this attention, no administration has ever completed such a plan.³⁸

A common criticism of the US programs to prevent proliferation to terrorist groups has been the lack of a focal point within the government to assess priorities, allocate budgets, and delegate authority across multiple government agencies. This absence is exacerbated by the annual budget process, which stovepipes funding within agencies without a process to recalibrate efforts based upon changing threats. Not only does this promote redundancies and inefficiencies across programs, but it also frustrates efforts to

There has not been a global reassessment of these programs' roles and objectives to ensure efficiency and effectiveness in the current strategic environment.

pair budget allocations with security priorities. For instance, the cooperative nonproliferation programs were conceived and launched in the early years following the unanticipated collapse of the Soviet Union in the early 1990s. This time period was characterized by major political, social and economic transition throughout the region. Despite radically different circumstances in the former Soviet states today, the growth of the proliferation threat well beyond the borders of the FSU and the piecemeal development of additional nonproliferation, counterproliferation, detection and interdiction programs, there has not been a global reassessment of these programs' roles and objectives to ensure efficiency and effectiveness in the current strategic environment. Not only is there a need to reevaluate the original patchwork of nonproliferation programs that have evolved, but the other major programs established at the Departments of Homeland Security, Justice, Treasury and elsewhere after September 11 to address a more diffuse scope of threats should be reevaluated as well.

All of these efforts have not been integrated into a holistic and coordinated strategy to combat the proliferation risks emanating from various groups and states. US coordination in addressing this -- the most urgent and unmet threat to national security -- should also extend beyond the traditional security agencies, enlisting the expertise and assistance of other agencies, like the US Agency for International

Development, for example, in coordinating strategies to address the demand side of the proliferation problem.

INTEGRATION: D



SUSTAINMENT

The nonproliferation programs remain the core strategy for denying terrorists access to weapons, materials, and expertise of mass destruction. Ensuring the lock-down and ultimate elimination of unsecured weapons and loose nuclear materials should remain the top priority of US policymakers. However, unless these programs are accompanied by longer-term strategies to develop local buy-in, the benefits that could stem from these smart investments could be squandered because of political predilections toward expedience and critical but short-sighted “get-secure-quick” schemes.

At present, the United States is the single largest contributor to global nonproliferation activities, occurring in dozens of countries and expending more than \$1.4 billion annually. While this trend should continue and should increase if and when necessary, US funding cannot continue in perpetuity. Ultimately, a transition must occur from dependence on US financial support to joint responsibility of local host governments to fund and maintain adequate security standards. However, such indigenization of nonproliferation programming presupposes host country concurrence with the threats and with global standards to manage the threats, buy-in to the global regime, and in-state capacity to build and maintain a full spectrum of nonproliferation programs. Structural and bureaucratic stovepiping within the US policymaking and policy

execution processes have led to a lack of long-term planning across the US strategy to combat proliferation of weapons of mass destruction to terrorists. The result has been a focus on near-term threat avoidance over long term and enduring solutions to security challenges and a sustainable nonproliferation policy based upon the enlightened self-interest of all parties involved.

SUSTAINMENT: **D**



RECOMMENDATIONS

Governor Kean and Congressman Hamilton's 2005 conclusion that the United States government is not doing enough to address the threat of nuclear terrorism remains true today. Although the President and the Congress have added layers of defense, the size and scope of the threat continues to dwarf the policy response.³⁹ The US government's efforts continue to earn an improved but still inadequate overall grade of "**C.**"

Strengthening Prevention

1: While host government recalcitrance has been an ongoing challenge to full implementation of our country's proliferation prevention agenda, the United States has developed its own legal and bureaucratic obstacles to effective implementation. The President and the Congress must collaborate to eliminate these obstacles by: addressing staffing shortfalls where they exist within the implementing agencies, streamlining contracting and other implementing processes, better pairing agency budgets with program priorities, removing unnecessary legislative and funding restrictions, and developing a foundation for an ongoing process within which to set priorities, ensure coherence between agencies and our foreign partners.

2: The President should redouble his efforts to encourage our foreign partners to live up to the commitments made under the Global Partnership Against the Spread of

Weapons and Materials of Mass Destruction, UN Security Council Resolution 1540, and all other national, bilateral, and multilateral nonproliferation obligations.

Ensuring Detection

3: Expanding the number of countries participating in preventive programming both as donors and as near-term recipients remains a key priority. The United States government has been especially active in developing innovative new approaches to detect and interdict weapons and materials in transit. Globalization, technological innovation, the ease of international communication and transport, free trade, financial liberalization, and the advent of the "virtual world" have collided with the end of the Cold War to challenge the nonproliferation regime. Terrorist organizations have also emerged intent on capitalizing upon new opportunities to acquire nuclear materials and other sensitive technologies. And other sub-state actors have similarly emerged to more readily offer those technologies—including legitimate private sector companies. As globalization expands and private companies play an increasingly large role in the prevention of proliferation, the United States government must work to engage the private sector as partners in prevention rather than as targets of suspicion and regulation.

4: The Proliferation Security Initiative (PSI) was of key concern for the 9/11 Commission. The Bush administration should be commended for the importance it has accorded this element of the wider counter-nuclear terrorism strategy. The President

should continue to work to resolve outstanding legal disputes surrounding the PSI, develop dedicated funding for the measure, and continue to press for geographic expansion.

Expanding Integration

5: As in 2005, it remains critical for the US government to develop an integrated strategy to deal with the enduring threat of nuclear terrorism. The Congress and external experts have called upon successive presidents to develop such a plan, but to date, no administration has seen fit to undertake such a comprehensive reevaluation that assesses the changing threat, determines priorities, allocates budgets, and delegates the necessary authorities. Given the urgency of the threat, such a plan should also go beyond the traditional counterproliferation and counterterrorism agencies of the US government, leveraging any and all available instruments of the US government (including the intelligence and global development communities), our allies, the private sector, and other non-governmental entities.

Promoting Sustainability

6: Since the end of the Cold War, US government investments in proliferation prevention have been substantial. The gravity of the threat suggests that those investments should grow, provided that they can be spent efficaciously. Ultimately, however, America's role abroad in many of these activities must transition to local control both from a management perspective and a financial perspective. This presupposes that our activities are des-

igned to meet the dual objectives of prevention in the near term, and sustained buy-in in the long term. To date, this has not been universally true. All US government activities abroad must be sensitive to addressing common threat perceptions. Managing expectations and developing buy-in are critical to program stability and long-term sustainability. The United States government should also look to innovative new tools to leverage America's unparalleled science and technology capacity, global development assistance, and all other potential inducements as a means of building deeper and sustained cooperation for the nonproliferation of nuclear weapons, materials and know-how.



NOTES

¹ **National Commission on Terrorist Attacks upon the United States,**

The 9/11 Commission Report
(New York: W.W. Norton, 2004): 380.

² **National Commission on Terrorist Attacks upon the United States,**

381.

³ **Dipesh Gadh,**

"Al-Qaeda 'Planning Big British Attack,'" *The Sunday Times* (April 22, 2007), accessed at: <http://www.timesonline.co.uk/tol/news/uk/article1687360.ece>.

⁴ **Middle East Media Research Institute,**

"On Islamic Websites: A Guide for Preparing Nuclear Weapons," MEMRI Special Dispatch Series, No. 1004 (October 12, 2005), accessed at: <http://memri.org/bin/articles.cgi?Page=archives&Area=sd&ID=SP100405>.

⁵ **Dan Bilefsky and William J. Broad,**

"In Slovakia, Three Are Held in a Uranium Smuggling Case," *The New York Times* (November 30, 2007), accessed at: http://www.nytimes.com/2007/11/30/world/europe/30uranium.html?_r=2&oref=slogin&oref=slogin.

⁶ **National Intelligence Council,**

"National Intelligence Estimate: The Terrorist Threat to the US Homeland" (July 2007), accessed at: http://www.dni.gov/press_releases/20070717_release.pdf.

⁷ **Charles B. Curtis,**

"The Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions," Testimony before the US Senate Armed Services Committee (August 1, 2002), accessed at: http://www.globalsecurity.org/military/library/congress/2002_hr/curtis2.pdf.

⁸ **Dr. Steven Aoki,**

"Detecting Smuggled Nuclear Weapons," Testimony before the Subcommittee on Terrorism, Technology, and Homeland Security of the US Senate Judiciary Committee (July 27, 2006), accessed at: [http://www.nnsa.doe.gov/docs/congressional/2006/2006-07-27_SJC_Nuclear_Detection_Hearing_\(Aoki\).pdf](http://www.nnsa.doe.gov/docs/congressional/2006/2006-07-27_SJC_Nuclear_Detection_Hearing_(Aoki).pdf).

⁹ For a comprehensive overview of nonproliferation activities and successes at all three executive agencies, see:

The Henry L. Stimson Center,

"The Nonproliferation Scorecard," accessed at: <http://www.stimson.org/cnp/?SN=CT20050804895>.

¹⁰ **The 9/11 Public Discourse Project,**

"Report on the Status of 9/11 Commission Recommendations: Part III: Foreign Policy, Public Diplomacy, and Nonproliferation" (November 14, 2005): 3, accessed at: http://www.9-11pdp.org/press/2005-11-14_report.pdf.

¹¹ By the end of FY06, comprehensive upgrades were completed for an estimated 55% of all the buildings in the FSU containing weapons-usable nuclear material. Rapid upgrades had occurred at an additional 15% of those sites for a total of 70% with at least rapid upgrades. Security upgrades were completed at roughly half of the nuclear warhead sites in Russia.

Matthew Bunn,

Securing the Bomb 2007
(Cambridge, MA and Washington: Project on Managing the Atom, Harvard University, and Nuclear Threat Initiative, September 2007).

¹² **United States Government Accountability Office,**

Nuclear Nonproliferation: Progress Made in Improving Security at Russian Nuclear Sites, but the Long-term Sustainability of U.S.-Funded Security Upgrades is Uncertain
(Washington: Government Accountability Office, February 2007).

¹³ Budget calculations for MPC&A include the following programs: Navy Complex, Strategic Rocket Forces/12th Main Directorate, Rosatom Weapons Complex, Civilian Nuclear Sites, Material Consolidation and Conversion, and National Programs and Sustainability.

Office of the Chief Financial Officer,

"National Nuclear Security Administration," *Department of Energy FY 2008 Congressional Budget Request* (Washington: Department of Energy, February 2007), accessed at: http://www.cfo.doe.gov/budget/08budget/Content/Volumes/Vol_1_NNSA.pdf;

and

Office of the Chief Financial Officer,

"National Nuclear Security Administration," *Department of Energy FY 2007 Congressional Budget Request* (Washington: Department of Energy, February 2006), accessed at: http://www.cfo.doe.gov/budget/07budget/Content/Volumes/Vol_1_NNSA.pdf.

¹⁴ **Ibid.**

¹⁵ **National Nuclear Security Administration,**

"GTRI: More Than Three Years of Reducing Nuclear Threats," NNSA Fact Sheet (December 2007), accessed at: <http://www.nnsa.doe.gov/docs/factsheets/2007/NA-07-FS-03.pdf>.

- ¹⁶ *Ibid.*
- ¹⁷ **Center for Nonproliferation Studies**,
“Past and Current Efforts to Reduce Civilian HEU Use,”
Civilian HEU Reduction & Elimination, Nuclear Threat Initiative,
accessed at:
<<http://www.nti.org/db/heu/pastpresent.html#gtri>>.
- ¹⁸ **Bunn**, 171.
- ¹⁹ **Department of Defense**,
Cooperative Threat Reduction Annual Report to Congress:
Fiscal Year 2008
(Washington: Department of Defense, 2007): 1, accessed at:
<<http://www.dtra.mil/documents/oe/ctr/FY08%20CTR%20Annual%20Report%20to%20Congress.pdf>>.
- ²⁰ **Office of the Press Secretary**, The White House,
“Statement by President Bush on 15th Anniversary of the
Cooperative Threat Reduction Program”
(August 29, 2007), accessed at:
<<http://www.whitehouse.gov/news/releases/2007/08/20070829.html>>.
- ²¹ **United States Congress**,
Department of Defense Appropriations Act, 2008
(Washington: Government Printing Office, 2008), accessed at:
<<http://thomas.loc.gov/cgi-bin/bdquery/z?d110:h.r.03222>>.
- ²² **Brian D. Finlay and Elizabeth Turpen**,
Cooperative Nonproliferation: Getting Further, Faster
(Washington: The Henry L. Stimson Center, January 2007).
- ²³ National Commission on Terrorist Attacks upon the United States, 381.
- ²⁴ *International Convention for the Suppression of Acts of Nuclear Terrorism*
(New York: United Nations, April 2005), accessed at:
<http://untreaty.un.org/English/Terrorism/English_18_15.pdf>.
- ²⁵ Bangladesh became the 22nd country to submit its instruments of ratification, which brought the treaty into force on July 7, 2007. See
James Martin Center for Nonproliferation Studies,
“International Convention for the Suppression of Acts of Nuclear Terrorism,”
Inventory of International Nonproliferation Organizations and Regimes (October 22, 2007), accessed at:
<<http://www.cns.miis.edu/pubs/inven/index.htm>>.
- ²⁶ **Office of the Press Secretary**, The White House,
“Message to the Senate of the United States”
(July 13, 2007), accessed at:
<<http://www.whitehouse.gov/news/releases/2007/07/20070713-4.html>>.
- ²⁷ **Secretary of the Senate**,
“Treaty Documents Received in the Senate During the Current Congress”
(2008), accessed at:
<http://www.senate.gov/pagelayout/legislative/one_item_and_tasers/trty_rcd.htm>.
- ²⁸ **International Atomic Energy Agency**,
“Convention on the Physical Protection of Nuclear Material,”
INFCIRC/274/Rev.1 (May 1980), accessed at:
<<http://www.iaea.org/Publications/Documents/Infcircs/Others/inf274r1.shtml>>.
- ²⁹ **International Atomic Energy Agency**,
“Amendment to the Convention on the Physical Protection of Nuclear Material”
(November 9, 2007), accessed at:
<http://www.iaea.org/Publications/Documents/Conventions/cppnm_amend_status.pdf>.
- ³⁰ **Office of the Press Secretary**, The White House,
“Message to the Senate of the United States”
(September 13, 2007), accessed at:
<<http://www.whitehouse.gov/news/releases/2007/09/20070905-7.html>>.
- ³¹ **Office of the Chief Financial Officer**,
“National Nuclear Security Administration,”
Department of Energy FY 2008 Congressional Budget Request, 474.
- ³² **National Nuclear Security Administration**,
“All of Russia’s Border Crossings to be Outfitted with Proliferation Prevention Equipment”
(June 1, 2007) accessed at:
<http://www.nnsa.doe.gov/docs/newsreleases/2007/PR_2007-06-01_NA-07-21.htm>.
- ³³ **United States Customs and Borders Protection**,
“CSI In Brief”
(October 3, 2007), accessed at:
<http://www.cbp.gov/xp/cgov/border_security/international_activities/csi/csi_in_brief.xml>.
- ³⁴ National Commission on Terrorist Attacks upon the United States, 381.
- ³⁵ **Department of State**,
“Proliferation Security Initiative Participants”
<<http://www.state.gov/t/isn/c19310.htm>>
- ³⁶ **Sharon Squassoni**,
“Proliferation Security Initiative (PSI),”
CRS Report for Congress RS21881 (September 14, 2006),
accessed at:
<<http://fpc.state.gov/documents/organization/74917.pdf>>.



³⁷ **Thomas H. Kean and Lee H. Hamilton,**
“Opening Remarks of Thomas H. Kean and Lee H. Hamilton”
9/11 Public Discourse Project (November 14, 2005), accessed
at:
<http://www.9-11pdp.org/press/2005-11-14_remarks.pdf>.

³⁸ See for example: The *Implementing Recommendations of the 9/11 Commission Act of 2007* (Public Law 110-53) establishing the Office of the United States Coordinator for the Prevention of Weapons of Mass Destruction Proliferation and Terrorism. The head of that office is required to develop, “a comprehensive and well-coordinated United States strategy and policies for preventing WMD proliferation and terrorism” which includes “plans to coordinate United States activities, initiatives, and programs relating to the prevention of WMD proliferation and terrorism, including those of the Department of Energy, the Department of Defense, the Department of State, and the Department of Homeland Security, and including the Proliferation Security Initiative, the G-8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, United Nations Security Council Resolution 1540, and the Global Initiative to Combat Nuclear Terrorism.” See also the *Nuclear Threat Reduction Act of 2001* (H.R. 2351, not enacted), which mandated the President submit to Congress a plan to secure and neutralize over the succeeding eight years all nuclear weapons and weapons-usable nuclear material in Russia, and the FY1997 National Defense Authorization Act (Public Law 104-201) which set up a National Security Council Committee on Nonproliferation with a mandate to make recommendations on integrated national policies for countering the threats posed by weapons of mass destruction.

³⁹ **Thomas H. Kean and Lee H. Hamilton,**
“Report on the Status of 9/11 Commission Recommendations:
Part III: Foreign Policy, Public Diplomacy and Non-Proliferation,
Opening Remarks of Thomas H. Kean and Lee H. Hamilton:
Chair and Vice Chair of the 9/11 Public Discourse Project”;
November 14, 2005, accessed at:
http://www.9-11pdp.org/press/2005-11-14_remarks.pdf

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The Cooperative Nonproliferation Project at the Henry L. Stimson Center offers innovative, functional approaches to address the most significant threat to international security today: the spread weapons of mass destruction. It seeks to bridge the gap between traditional 'hard' security (proliferation) and 'soft' security objectives (capacity-building, global development and public health), and partners with the public and private sector—an under-exploited resource—to achieve national security and development objectives.

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